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## General Hints on a House-Apiary.

BY B. TAYLOR.

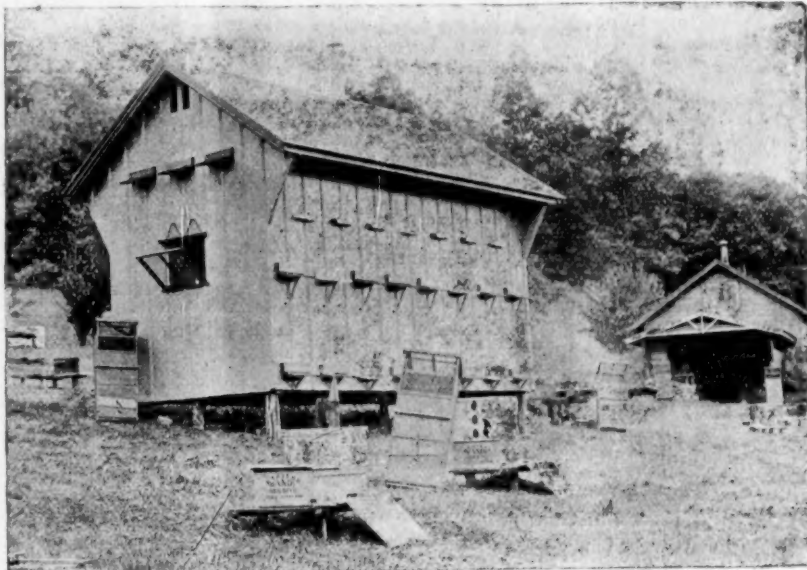
(Read at the Wisconsin State Convention, Feb. 6 and 7, 1896.)

I will give a few thoughts upon the subject of house-apiar-ies, drawn from six seasons' experience with that method of caring for bees.

To make bee-keeping pay, we must have good crops of surplus salable honey, and to get that we must have plenty of

it would furnish all the prime conditions for perfect winter quarters. I reasoned by having the hives near together, and packing a number of them properly with a cold-excluding and warmth-retaining blanket of dry sawdust, that each single hive would co-operate with its neighbor in retaining heat, and thus secure mutual warmth, even temperature at all times, and especially protection from sudden harmful changes of temperature in the critical breeding season—early spring. I reasoned that the bees would be at liberty to take a cleansing flight several times during winter, on warm days, and that such flights would be more healthful for the colonies than five or more months of cellar confinement. Yes, theoretically, the house-apia-ry furnishes all the conditions that reason demands for successful fall, winter, and spring protection.

I have not been disappointed, for five winters' practical experience has proved the house a good, safe place to winter bees in. I have, it is true, had some loss each winter in the house, but there was each year still greater loss, with equally good colonies, in a first-class cellar. I have each season got better results in surplus honey in the house than in the open yard. Perhaps this may have come from giving the bees in the house a little the best care. Feeding, and many other



Mr. B. Taylor, of Forestville, Minn., and His House-Apiary.

healthy bees in early spring, so a large army of workers may be bred in time for the white clover harvest, and in order to have those early bees, successful wintering is indispensable. Moses Quinby long ago declared what our experience has proved true, viz.: That two-thirds of the failures in bee-keeping come from failure in successful wintering. The house-apia-ry, then, to be practical must be a good place to winter bees in.

When first resolved to try a house-apia-ry, I reasoned that

necessary things are more easily done in the house. Robbing, cross bees, wet grass, hot sun, and many other nuisances are unknown in the house. It is a great comfort to be able to open a hive at any time, and not be troubled with robbers.

I put my bees into the cellar last year on Nov. 8; the bees in the house have had two splendid plays since then. They were out Jan. 8, and yesterday (Jan. 30) they were out en masse. In both of these flights not enough bees chilled to speck the snow.

In regard to the construction of houses, I have been unable to discover anything better than my new house-apary. It is cheap and simple, and fills all practical demands so far as I can see. Some have advocated building with packed walls, and made warm enough so the hives would need no packing, but the cost would be greatly increased, and no practical good gained. Several good houses have been illustrated in the bee-papers in the last year or two, but in principle they are the same as my own. Some have used the shelf to set the hives on, without a bottom-board. This is not good. We need to handle and change hives in the house, and when the hives set directly on the shelves, every time a hive is lifted the shelf will be left covered with crawling bees, and they must be brushed away to give place for the new hive that must be set down. I have the same bottom-boards for the hives in the house as for the out-yard work. When I lift a hive I move bottom and all to a table near by. If I need to move the hive from the bottom, I carry the bottom with its crawling bees outside, and they will return home.

In the swarming season, if we want increase, we will need to move the hive that has swarmed to a new stand outside, and a movable bottom-board is needed for the reason I have given. I mention this seemingly trifling part because some may wish to build, and Mr. Root says in the "A B C of Bee-Culture," that the bees you must necessarily have under foot in a house is a great nuisance. I have not crushed a gill of bees on the floor in my five years' practice. Gentle Italians that will not rush from the hive when opened are a great comfort in the house. It is also a great comfort to have hives with frames that can be taken out and returned with certainty to their proper place quickly, and without any prying and scraping; and frames handle more conveniently when placed lengthwise of the shelves.

I like the plan of building house-aparies on posts raised two feet from the ground, for it is the only cheap, practical way of entirely getting rid of that unbearable nuisance—rats and mice—which are sure to undermine stone-walls and dirt floors. In my house rats and mice have no place they can sit on to gnaw, and I have entire immunity from them.

I regard house-aparies as especially adapted to out-yards, having all the facilities for properly caring for bees in themselves the year around, and without increased cost over open yards; I contemplate increasing my honey-business in that way.

In writing this I have only tried to give general helpful thoughts to those who may wish to build. A house-apary is not easily changed after once built, and I caution you to investigate and know what you want before you build. If you make no mistakes, you will not afterward regret having made "a house-apary."

Forestville, Minn.



### The Amalgamation Question Again.

BY HON. J. M. HAMBAUGH.

There has probably been enough said on this question already, but as the matter is still open to discussion, I trust no one will take exceptions to me having my "say;" and now that I have become a citizen of the banner honey-producing county of the banner honey-producing State of the United States, with once more a small apiary at my command, I feel somewhat disposed to arise and make myself known.

When this subject first came to my notice from the masterly pens of quite a number of the Bee Journal contributors, I was favorably impressed with the idea, and was disposed to give it my hearty approval, but after mature deliberation, and reading the able arguments on the opposite side in the controversy, I have become convinced that the amalgamation of the North American and the Bee-Keepers' Union would not be in accord with the best interests of the two societies, and the bee-keepers' interest in general throughout the United States.

In the first place, I will state that the Bee-Keepers' Union is National and not international, and to combine the two societies under one code, would necessitate an entire change of constitution, by-laws, and the entire *modus operandi*. And now the question naturally comes up, are the two societies reconcilable?

In a financial point of view, which of the two old societies would have the greater amount of money to replenish the treasury of the new society? Our General Manager of the Bee-Keepers' Union reports the balance in the Treasury, Dec. 31, 1895, to be \$771.61; while the report of the Secretary of the North American, at Toronto, Sept. 6, 1895, reports a balance of \$7.53. Is there not a chance here for a bone of contention?

Again, by our abandoning the National feature to become international, do we not embrace in our territory the entire

northern hemisphere, which would take in Canada, Mexico, and the British Possessions of North America? In so doing would our brethren across the borders be willing to accept a tax that would place them on an equal footing with us financially? or would we have to hold the amount from the Bee-Keepers' Union as a gratuitous fund to be used alike in the interests of the pursuit regardless of boundary lines?

Now, friends, in all fairness and justice, would it not be more consistent to have the matter fairly explained before the members of the Bee-Keepers' Union, and give them an opportunity to vote for or against the amalgamation, ere you seek to change the situation that prompted them to contribute their money?

The Bee-Keepers' Union was organized for the mutual protection to its members against unjust encroachments and "assaults of the enemies of the pursuit;" and with this banner in the hands of our bold and indefatigable General Manager—Thos. G. Newman—success has perched upon our banner, and bee-keepers have had a bulwark of defense, that few pursuits can boast of; and with all due deference to other members composing the organizers and promoters of the Bee-Keepers' Union, to Thos. G. Newman belongs the honor of its universal beneficence to the bee-keepers' cause; and to dethrone him from a position in which he has proven himself our greatest benefactor, we believe would not be in accord with the true rules of etiquette and the best interests of the pursuit.

The Union as it now stands with our highly-esteemed General Manager, Thos. G. Newman, at the helm, is too potent a power for good to be destroyed by the cohesion of other societies. It is our safe-guard against unjust encroachments, and a terror to wrong-doers. What more could we desire of one society? Let the Union stand, is our motto.

Escondido, Calif.



### Artificial Swarming, or Dividing for Increase.

BY CHAS. DADANT & SON.

(Continued from page 146.)

Now that we have our queen-cells reared—for we aim to make enough of the colonies queenless to rear all the cells we need for our swarms—our next step is to make small swarms, something like what queen-breeders call "nuclei," after Langstroth, but these nuclei, instead of being made in diminutive hives with microscopic frames, are made in the ordinary style of hives, with from two to four frames of brood, bees and honey, and a division-board, or dummy, to reduce the space.

To make these swarms we do not take anything from our honey-producing colonies. These are left in full possession of all their strength, which they need to produce a good crop. In an apiary of, say 50 colonies, only enough of the best are broken up, as previously stated, to furnish all the queen-cells we need; after this, we make the divisions from the colonies which would not be likely to produce any honey. In every apiary there are a number of colonies, which, either owing to weakness in early spring, to lack of fecundity in the queen, to a shortage in their supplies, or to other unaccountable cause, are late in their brood-rearing, and become strong only when the crops is at its height, or past its best. They are then in possession of a large lot of brood, and will hatch many bees that will only serve to consume the stores; for they will be fit to work only after the crop is over. These are the colonies that we use to make our swarms. In a state of nature, not one swarm would be harvested from them; and if they did swarm, their progeny would not be desirable, since, in all probability, their queens are only second-best in prolificness. As we have our queens all reared, and all from the best stock, it does not matter from which hives we take our increase.

On the 9th day after the queens have been removed, as mentioned in the previous article, we open our queenless hives, or hives, and count the queen-cells. We then make as many nuclei, with two frames of brood, and two frames of honey, and pollen, and bees enough to cover them, as we have queen-cells left, after leaving one to each hive. On the next day, after the bees have ascertained their loss, we insert the queen-cells (after the method of queen-breeders) in these queenless nuclei. We can take as many as two swarms from one hive; but this is not advisable. We prefer to take only one from each, with nearly all the young bees that the hive contains; for many of them will return to the parent hive. If the weather is cool, and we can keep the hives shaded, we close up these nuclei until the next day; so they become accustomed to their new habitation. Care must be taken, of course, not to remove the queen with the bees, and it is always best to find her. If we took her with the swarm, our aim would be foiled, for she would destroy the queen-cell when we insert it, and



the queenless colony, from which she was removed, would then be compelled to rear another, an inferior queen like herself.

The colonies, from which these combs of brood and feed have been removed, are at once supplied with frames full of foundation, and in a few weeks those hives are again filled. If we do not wish to use full sheets of foundation, we make it a point to remove all, or nearly all, the combs, and furnish these bees with a large lot of empty frames, with only starters, or guides; for we have noticed that, unless a colony is almost without comb, it will, if strong, during a good crop, build a great many drone-cells. A swarm, beginning in an empty hive, will invariably build 90 per cent. of worker-comb. A colony with only three combs to build, if strong in bees, during the harvest, will build half of these in drone-comb. For this reason, we let only comparatively weak colonies, and colonies with young queens, do the comb-building. Most important of all, we do not give any empty space to a queenless colony, for they would build nothing but drone-comb. It is for this reason that we do not wish our nuclei to have any more bees than are necessary to keep the brood warm, until their queens are fertile and laying. We also believe that a colony while queenless is somewhat discouraged; that the bees do not work with enthusiasm, and we want to use as few bees as possible for this purpose.

In about 10 to 14 days after the queen-cells have been introduced, most of our queens are laying, and the little colonies may be reinforced by giving them more bees, and more brood-combs, if we have them. The same colonies that have been used to furnish the bees, may be called upon to do this. The swarms, according to their strength, may be given empty frames, in which they will most probably build nice worker-combs. If foundation is used, and we generally use it, the advance is very much more prompt.

In all these manipulations, we must be careful not to leave a swarm, that has brood with too few bees; not to divide a weak colony, or give a queenless colony any empty space, in which they might build.

The swarms which have been made must be examined, so they may not rear additional queen-cells, and swarm with the young queen first hatched. We have seen very weak colonies divide up in this way. The swarms, in which the young queens are inserted, while yet in their cells, may destroy those cells, and try to rear some of their own brood; or the young queen may be lost in her wedding-trip, and this must be all attended to. These accidents may look as quite a hindrance to the success of the method, and may annoy some people, but, after all, they do not amount to anything, when compared to the trouble given by natural swarming.

In our eyes, the advantage of our system rests in the being able to save, for honey-production, the very colonies that are most likely to yield honey, and to use, for increase, such colonies as would give little if any profit; while we are, at the same time, breeding our bees from our best stock, and the increase thus made is, so to speak, of the gilt-edge kind. It is worth quite a little trouble to attain this end, and the profit reaped is two-fold.

Hamilton, Ill.



### The Cheshire Cure for Foul Brood.

BY WM. F. CLARKE.

On page 19, we are informed that several parties mentioned by name have tried the Cheshire drug treatment for foul brood and found it a complete failure. It is further stated that any medicated syrup strong enough to cure foul brood would kill all the sound larvae and every bee in the colony. One of the persons named is said to have "sprayed the diseased combs with acids so strong, that the combs fairly smoked" and then it failed to cure them of foul brood.

This is not the Cheshire remedy for foul brood. The Cheshire prescription is simply to get the bees to consume syrup medicated with phenol. In his great work, Vol. II, page 582, he speaks of many, who "with a perversity which is almost incredible say that phenol will not cure, for they have given it in the food-bottle, but the bees would not take it." On the next page he asserts that if the bees can be induced to take the phenolated syrup they "will use a curative quantity of it."

So far as I know, I am the only bee-keeper on the American Continent who has patiently investigated the Cheshire method and got to the bottom of it. He prescribes from the 500th to the 750th proportion of phenol. I am inclined to think the drug is not always of the same potency. At any rate, the main difficulty is to get the bees to take the mixture. When they will do that, it is plain sailing. My eyes were

opened when, after many failures I at last got a foul-broody colony to take the phenolated syrup. I fed them 20 pounds of it in the fall. Next spring and all through the following season they were the best colony I had. Of all the many pretty processes in bee-keeping, there is nothing prettier than to see how the bees will clean out the foul brood when once you get them onto a diet of phenolated syrup. It is like magic, the way it works.

Ridicule is not argument. I am not lecturing the people with solemn airs on what science teaches. I am dealing with facts and speaking of what I know. Deliberately, I wish to put myself on record as asserting that the Cheshire treatment, as he prescribes it, is what I have called it—"a cheap and easy cure for foul brood," in all curable cases. It is also a remedy, in comparison with which every other I have tried is "vanity and vexation of spirit." I can bide my time, assured that sooner or later, in this case as in every other, "*magna est veritas et prevalebit*."

I will only add that the man who does not know how to feed a colony of bees medicated syrup without their being robbed by other bees is not much of a bee-keeper, and had better look into Mr. Benton's new book on "The Honey-Bee," page 117, and learn the Cheshire way to prevent robbing.

Guelph, Ont.



### The Past and Present of Bee-Keeping.

BY G. M. DOOLITTLE.

Having occasion, lately, to look over an old diary to find something that was called in question, I ran across an item which was written by a friend to prove that bee-keeping was always to be a lucrative business, which item read as follows:

"Notwithstanding the great demand for bees, and the immense quantities of honey that are produced from year to year, the amount largely increasing each year, I do not see any reason to think that overstocking or overproduction is a factor that need trouble us in this generation. At any rate, I don't see that the price of nice honey is any lower than years ago."

This was written in 1884, or about 12 years ago, and in reading there was a strange sound to it; strange, not only from the standpoint of 1896, but from the standpoint of 1869, as well, at which time I commenced to keep bees. I fell to wondering if "this generation" that existed 12 years ago had passed away, for surely, if I read our present bee-literature aright, both "overstocking" and "overproduction" are causing a wall to come from nearly every hand. Hear Mr. Hutchinson telling in the Review how the forests have been cut off, the swamps been dried and the fence-corners cleaned out, till the flora which we had a few years ago—which invited the little busy bee to a sumptuous feast—was becoming nearly as scarce as the trails of the Indian. Then hear Dr. Miller, and others, asking if the good old times will ever come again? All of which point to the fact, that whether overstocked or not, from some reason the average bee-keepers does not secure the average good crops of honey that they did years ago.

Then look at the talk of low prices, the planning to form a honey-association, and the censure of our commission-men, who realize only 10 cents a pound for nice white comb honey to their consigners, where they sell at 14 cents, and ask yourself if overproduction is not figuring in this matter of low prices. If it is not overproduction that makes the low prices for honey, what is it? Commission-men were not formerly criticised for charging 10 per cent., for that was the usual charge during the early seventies. All must admit that the market price of honey is much lower than it formerly was, and when 10 per cent. is taken from a low price it hurts the honey-producer much worse than it does to have the same per cent. taken from a high price. Small honey-producers can sell their honey to advantage about home, in neighboring villages, but the large producer must always seek a market for his produce in the large cities, and the price obtained in these cities has very much to do with home prices; hence the "market price" is what we have to look to in determining whether overproduction has had anything to do with the matter of prices.

I commenced bee-keeping 27 years ago the present spring, and at that time honey in six-pound boxes, having glass on two sides, brought 25 cents per pound, delivered at the railroad, while in the fall of 1869 I was offered by a party from New York city, 50 cents per pound for the little I had, the advance of 100 per cent. being caused by a very poor season during 1869, so that the supply was very much less than the demand.

The season of 1870 being an extra-good one, the price fell back to 25 cents again, at which price I sold my crop of

that year, as well as that of 1871 and 1872. Owing to the loss of bees during the preceding winter, the supply was insufficient again, so that in the fall of 1873 I sold at 27 cents, taking my whole crop, light and dark, together, while in 1874 I received 28½ cents per pound for the whole of my crop. Those prices brought more persons into the business, which, with but little loss in wintering, caused honey to drop, so that 26 cents was the price I obtained in 1875, while in 1876 the supply was again adequate to the demand, and 25 cents was the selling price.

That the readers of the American Bee Journal may know something of the past, without going over the matter for themselves, I have carefully looked up the market reports as given in our bee-papers, and here give an average of quotations as I found them. For 1874, 28 to 30 cents; 1875, 27 to 30; 1876, 23 to 25; 1877, 20 to 22; 1878, 12 to 16; 1879, 20 to 22; 1880, 18 to 20; 1881, 18 to 22; 1882, 22 to 25; 1883, 18 to 20; 1884, 17 to 19; 1885, 15 to 18; 1886, 14 to 16; and during the past 10 years the prices have ranged between those of 1886 and the 13 to 15 cents of the present. Previous to 1874 I fail to find any quotations in any of the bee-papers which I have.

From the above it will seem that honey quotations at present, and for the past 10 years, are fully 100 per cent. lower than they were in the early seventies. Another thing, which is, that honey in such shape as was sold from 1868 to 1873 at 25 cents or above, per pound, would not net to-day over 6 to 8 cents in any market. To bring from 13 to 15 cents now, honey must be very fancy, in one-pound-sections, without glass, which means nearly if not quite six times the labor and expense to the bee-keeper that six pounds of honey, in one box, meant 25 to 30 years ago, so that honey really does not bring, taking all these items into consideration, much more than one-third what it did "years ago." Wherein lies the trouble? Is it not overproduction, which my old friend of years ago said would be no factor "in this generation?" If not in overproduction, wherein does it lie? Will not some one tell us, for when we know the cause we may be able to apply a remedy?

Borodino, N. Y.

## CONVENTION PROCEEDINGS

### The Ontario Bee-Keepers' Convention.

The annual meeting of the Ontario Bee-Keepers' Association was held in Brantford, Jan. 15, 16, 17, 1896. The almost entire absence of a honey crop last year prevented a large attendance, and it was noticeable that some of those present were not in the best of humor, which condition had an undesirable effect upon the harmony of the sessions—more sweetness needed. Notwithstanding the fact that a programme was prepared that might have brought out much valuable discussion, the time was so much occupied with personal differences that not only was the time lost, but peaceable members became so much disgusted and annoyed with the proceedings that almost all the utility was taken out of the convention. It is a matter of regret that expert bee-keeping delegates should gather together from the very extremities of the Province, and not have an opportunity of teaching and learning lessons from each other's experiences, to be disseminated through the press, so that smaller bee-keepers may glean points whereby they may improve their methods. We would not be understood that the majority of the members who attend this convention from year to year are unreasonable cranks, but when a few men are allowed to break the peace of the whole gathering, the directors and other officers are more to blame than perhaps they allow themselves to believe. We have attended the last two annual meetings, and have come to the conclusion that unless the directors and officers combine against such dissensions as have characterized these two conventions, the money expended in holding such would be more productive if devoted to some better directed enterprise.

PRESIDENT HALL'S ADDRESS dealt with the salient features of the industry. It was recommended that bee-keepers who get foul brood co-operate with the Inspector as carefully

as possible in stamping it out. It gave him pleasure to realize that Europeans are seeking Canadian honey; he therefore felt the necessity of having the Pure-Honey Bill passed, so that the reputation of Canadian honey may arrive at the position which will make it desirable to honey-consuming markets. The President also recommended that packages be stamped, on the same principle as the branding of Canadian cheese. [Mr. Hall's address will appear later.—Ed.]

FOUL BROOD.—The report of the Foul Brood Inspector, Wm. McEvoy, showed that 85 bee-yards were visited, 32 of which were affected with the disease. Owing to the severe frost, in May, followed by the continued drouth, the brood of many colonies died from starvation, which, in many cases, was taken for disease, and therefore a great demand was made for inspection, which fact indicates that bee-keepers are becoming more anxious for visits from the Inspector than heretofore. A few years ago much opposition was met from bee-keepers who now welcome inspection, knowing that the desire is to cure and not to kill, except when a cure cannot be otherwise obtained.—[Mr. McEvoy's Report will also appear soon.—Ed.]

Among the communications read was a letter from the Rev. W. F. Clarke, of Guelph, in which the Foul Brood Inspector was strongly condemned for having destroyed a number of his colonies by fire. To this, Mr. McEvoy explained that he had spent a great deal of time endeavoring to have a cure effected, but ultimately found that destruction by fire was the only wise method to pursue. After hearing both sides of the case, the convention endorsed the Inspector's actions in this as in all other cases. A vote of thanks was then tendered to him for his good work, and a resolution was passed to the effect that the association have confidence in their Inspector, and that they believe his method of cure is the best known.

THE PURE-HONEY BILL.—Mr. S. T. Pettit reported on the Pure-Honey Bill, which has been introduced into the House of Commons, but had not as yet passed all the readings. The purpose of the Bill is to prevent the production of sugar-honey, and ultimately to have the same effect on the honey industry of Canada as the law against "filled" cheese has on the cheese reputation and business. Mr. Pettit was one of a committee last year to go to Ottawa in its interest, and, although he did not succeed in getting the Bill through, he felt convinced that all that is necessary for its passage is continued effort by the association for a short time longer. One very good argument in favor of such a Bill was the presence of a sample of adulterated honey brought to the meeting by one of the directors, who obtained it from a grocery-store. It was in a glass vessel sealed with a paper stamped "Canadian honey." The stuff was mildly sweet, light in color, and thin. While it was not unpleasant to taste, its after effects were of such a character as to disgust a consumer with honey as an article of food. A sample of this so-called "Canadian honey" was recently subjected to the Dominion Analyst for analysis, when it was found to contain too much glucose syrup and more than the average per cent. of water. It was, therefore, evident that it had been adulterated with these substances. The only opposition offered to further pressing the passage of the Bill was by one member, who has always claimed that the Adulterated Food Act already covers the necessary ground. He therefore considered it unwise to expend any more money over it. It was, however, claimed by several intelligent members that the presence of such stuff as was proved to be upon the market showed that the passage of such an Act as is now being pushed is necessary in order to develop a demand for honey and to protect honest honey-producers. It was resolved that Mr. Pettit's report be accepted, and also that the former committee still prosecute the Passage of the Pure-Honey Bill.

HONEY-PACKAGES.—The question was asked, whether it were wiser to sell honey in packages, charging for gross weight for honey and package, or for net weight of honey. For instance, when honey is 10 cents per pound, is it wise to sell 10 pounds net of honey in a pail, or should the value of the pail be retained in honey? Several dealers claimed that the price of the vessel should be added to the honey in asking a price, as it was difficult to get extra for the pail, or get it returned in good order. It was, therefore, advised that 25-pound pails be used as far as possible, because the value of the pail was relatively small compared to the honey contained, and it is also of more value to the receiver, because of its size.

FOUNDATION IN SECTIONS.—While all agreed that at least a starter be used all around the edge, so as to avoid creep-holes between the wooden side and the comb, it was generally conceded that whole foundation of clear wax, about 10 or 12 feet to the pound, gave very satisfactory results in the production of comb honey. Too heavy foundation is apt to cause "fish-bone" comb.



**SHIPPING COMB HONEY.**—It is fairly evident that Manitoba will furnish a good market for a large quantity of comb honey annually, if of good quality and well packed. It was advised that sections to be shipped should be full and uniform, and packed so tightly that they cannot shift or rub. Mr. Hall, who has shipped as high as \$1,100 worth to Manitoba in one shipment, without any loss, recommends that not less than 200 pounds be put into a package, and that the package be long in form, and have two handles, so that it may be lifted by railroad men, and not rolled and tumbled. Mr. McKnight, who also ships to Manitoba, recommends using light but strong cases holding 12 sections each, packed on edge, three high and four deep. He also recommended that the case have a glass front, and that the crate be protected by laths nailed up and down the ends, the back, and cornerwise across the front; the sections should have comb attached all around, and that excelsior be used as packing to avoid crushing.

**VENTILATION OF HIVES IN WINTER.**—It is now generally admitted that upward ventilation is not desirable, but that front and back bottom ventilation should be given. It was recommended that the top of the hive be hermetically sealed with propolized cloth. For out-door wintering, six inches of straw should form the top, side and back packing; a less thickness is desirable on the south side, so that the warmth of the sun may penetrate to some extent on bright days. It is advisable to have a dead-air space on top. The subject of packing was gone into, and brought out points to the effect that dry leaves, well packed in, are entirely best when there is any possibility of rain getting in; but where a positively water-tight roof and box is used, dry sawdust answers all requirements.

**WINTERING BEES.**—Mr. Pettit is of the opinion that in the dead of winter, if bees are in the very best condition, they will be almost perfectly quiet. Other good bee-keepers claim that the bees are all right when a low hum of contentment, so-called, can be heard. The most generally accepted theory offered was that in large apiaries it is impossible to have all the colonies quiet at once. When they are in the best condition, the different colonies will each have their spells of humming and quietness.

**BUSINESS.**—The by-laws were adjusted to harmonize with the new Agricultural Act. It was also resolved that hereafter the reports of affiliated societies be in by Dec. 1, instead of Jan. 1, so that the annual meeting may be held in December.

A resolution was passed to the effect that each affiliated society be entitled to send two delegates to the annual convention, and the fee of \$5.00 paid by each affiliated society entitles the delegates to full privileges of members in voting, etc.

It was resolved, on recommendation of a committee appointed by the President, that the President, Vice-President, 2nd Vice-President and Secretary each represent on the Board the district from which they come, and that each of the nine directors represent one of the remaining nine districts, so that each district has representation.

**ELECTION OF OFFICERS.**—President, R. F. Holtermann, of Brantford; 1st Vice-President, J. K. Darling, of Almonte; 2nd Vice-President, W. J. Brown, of Chard; Secretary, W. Couse, of Streetsville; Treasurer, M. Emelgh, of Holbrooke. Auditors—J. D. Evans, of Islington; D. W. Helse, of Bethesda. Foul Brood Inspectors—Wm. McEvoy, of Woodburn; F. A. Gemmill, of Stratford. Directors—W. B. Holmes, of Athens; Allen Pringle, of Selby; J. W. Sparling, of Bowmanville; A. Pickett, of Nassagaweya; J. Armstrong, of Cheapside; A. E. Sherrington, of Walkerton; F. A. Gemmill, of Stratford; W. A. Chrysler, of Chatham; N. H. Hughes, of Barrie. Delegates to Fair Boards—Toronto, R. H. Smith, of Palmerston; Western, John Newton, of Thamesford.

The next annual meeting will be held in Toronto in December, 1896. The date was left to the Executive.

**AN OPEN SESSION.**—The second evening's meeting was thrown open to the citizens, and partook of the nature of an entertainment. Mayor-elect Elliott very ably filled the chair. After welcoming the bee-keepers to the "Telephone City," he made a few well-chosen and pleasing remarks. He expressed his appreciation of the work the Foul Brood Inspector is doing, and also wished the association success in obtaining pure honey legislation. Mr. McKnight, of Owen Sound, delivered an eloquent address, which was attentively listened to. Mr. Holtermann, the newly-elected President, gave an interesting address on the past, present, and future of bee-keeping. Some references were made to the care of honey, and to the natural history of the bee. He also hoped to see Canadian honey placed upon the English market by the Dominion Government. The programme was interspersed by highly-appreciated selections given by the "Telephone City Quartette." At the close of the entertainment the delegates were right

royally banqueted by the newly-elected President.—The Farmers' Advocate.

### The Bee-Convention at Kankakee, Ill.

On Feb. 8 about 25 bee-keepers of Kankakee county met in Kankakee to discuss apiculture and the desirability of organizing a county society. The idea of permanent organization met with hearty support, and resulted in the election of D. L. Durham President, F. S. Tinslar Secretary, and the appointment of a committee to draft a constitution and by-laws to be presented to the next meeting.

It was the general opinion that 1895 was a very profitable season here for bee-keepers, and that all bees went into winter quarters in excellent condition. One bee-keeper reported his crop (from 19 colonies, that increased to 27 during the season) at an average of 123 pounds of comb honey in sections, which we consider a very good showing. Sweet clover seems to have been the main source of supply.

Mr. Durham had owned bees five years. He had 4 colonies, and took 150 pounds from 2 of them last summer. Most of the honey was from sweet clover and heart's-ease.

Dr. Pottinger had 16 colonies, and took 300 pounds from 5 colonies.

Dr. Tinslar had only 2 colonies, began late, and had 18 pounds of surplus from one hive.

B. T. Brady had one colony, and secured 80 pounds of surplus, mostly basswood and sweet clover.

William Mote had 8 colonies, and secured 200 pounds, mostly sweet clover.

William Cooper had kept bees since 1853, often as high as 80 colonies, now down to one. He came to learn, not to talk.

Mr. Saltsider had 16 colonies, and took off 1,008 pounds, mostly sweet clover.

L. B. Bratton had 35 colonies in various hives; never made a business of it; took probably 1,000 pounds last year; sold and gave away a great deal.

F. C. Stewig had 3 colonies, and took off 160 pounds—basswood and sweet clover.

B. T. Graham started with 18 colonies last spring, increased to 26, and had 2,210 pounds, mostly basswood and sweet clover.

Chas. Lehnuz had 6 colonies that gathered 170 pounds. He had kept bees many years, but only since using frame hives had he been satisfied.

Charles Ring had 30 colonies to start with, and took, from 20, 2,450 pounds, and from the other 10 he extracted 250 pounds, and had as much left. Last season was a good one. Without sweet clover last year the crop would have been a failure.

Some discussion then took place on various matters, and it was decided to make the organization permanent, and hold frequent meetings. F. S. TINSLAR, Sec.

### The Seneca County, N. Y., Convention.

The 13th annual convention of the Seneca County Bee-Keepers' Association was held Dec. 19, 1895, representatives from adjoining counties being present. This was one of the most interesting and instructive meetings yet held by the Association. The most progressive bee-keepers of this and Tompkins county were among the speakers, who gave valuable information, gleaned from many years of experience.

The forenoon session consisted mostly of a social order, and initiating and getting acquainted with new members. After partaking of a bountiful repast served by the lady members, the meeting was opened by song and prayer, followed by the President's address, by Fred S. Emens, a very able essay, ending with a poem, "The Honey-Bee." "Advantages of being a member of the Bee-Keepers' Association," J. F. Hunt, who thought that the instructions given at these meetings were often of great value in an apiary, and recommended that the officer assign each member a certain subject to experiment on and report at the next meeting; also to establish uniform prices at home to improve our home market.

Reports of members of honey crop and success in wintering the past season: The average winter loss reported being 14 per cent., the greatest loss being 40 per cent., the smallest loss 4 per cent. The greatest losses reported were those just starting in the pursuit, while the smaller losses were reported by those ripe in experience of apiculture. The same could be said of the report of the honey crop, the greatest amount of surplus honey being taken by those of the most experience.

The total number of pounds of honey reported by the

members was 50,000, gathered by 750 colonies of bees. It is estimated that there was produced in the county 20,000 pounds of honey, gathered by 500 colonies of bees, not reported.

The question-box was next opened, followed by some valuable talk by B. D. Scott, on the home market and its improvement. Best method of preventing increase, also to increase, by J. C. Howard. Remove the queen about June 20; if you do not wish to increase, destroy her and let the colony rear a new queen. To increase, place the queen with about three frames of brood in a new hive, giving them frames as they are in need of them.

The following officers were elected for the coming year: President, F. S. Emens; Vice-President, J. B. Whiting; Secretary and Treasurer, C. B. Howard.

The next meeting will be held at Hayt's Corners, at the call of the officers. C. B. HOWARD, Sec.  
Romulus, N. Y.

### The Mesa County, Colorado, Convention.

An interesting convention of Mesa county bee-keepers was recently held.

Mr. J. U. Harris being chosen as temporary chairman, called the meeting to order, and in a few well chosen words stated to those present that the meeting had been called to arrange co-operation in buying supplies and disposing of honey at better prices; and for the general diffusion of apicultural knowledge.

On motion, J. U. Harris was chosen President, M. V. B. Page Vice-President, M. A. Gill Secretary, and J. P. Utterback Treasurer, by acclamation; the President appointed an Executive Committee consisting of Messrs. Kane, of Fruita, Wm. Dittman, of Plateau, and J. R. Penniston, of White-water; a committee of three was appointed, consisting of Messrs. Page, Patterson and Gill, to draft a constitution and by-laws.

The question was raised in regard to foul brood. Mr. Kane, of Fruita, stated that there was at the present time a great deal of foul brood existing in the lower end of the valley. All seemed to be alive to the fact that it was their duty as an organization to stamp out this disease in the county, it being ascertained through the bee-inspector, Mr. Leach, that there were at this time about 5,000 colonies of bees in Mesa county.

### The Ontario County, N. Y., Convention.

At the Ontario County Bee-Keepers' Association's annual session held in Canandaigua recently, various subjects of interest to apiarists were discussed. Pres. Walter F. Marks, in his annual address, advocated the adoption by the society of a system of marketing, whereby the producers of first-class honey would be assured of securing first-class prices. He would have an inspector appointed by the society to place a stamp upon all No. 1 honey, which stamp would bear the seal of the Association, and be a guarantee to purchasers, of the quality of the product. The plan was adopted, and E. H. Perry was appointed honey-inspector.

The Secretary read a translation from a German publication, entitled, "Gravenhorst on Apis Dorsata," which contained comments on an essay read before the local association last year, prepared by Frank Benton, of Washington, D. C. After the reading of the essay it was moved by H. L. Case, that the petition offered at the last annual meeting for the introduction of the Apis Dorsata be endorsed by the Association. This was done, and the Executive Committee was instructed to have the petition printed and circulated.

The following officers were elected: President, W. F. Marks, of Chapinville; Vice-Presidents—Lee Smith, H. L. Case, E. H. Perry; Secretary, Ruth E. Taylor, of Bellona; Treasurer, Heber Roat; Honey-Inspector, E. H. Perry, of South Bristol. The Association has a membership of 40, including honorary members.

The question-box was an interesting feature of the meeting. Among the exhibits were different samples of comb foundation, manufactured by J. Van Deusen & Son, A. I. Root Co., Schmidt & Thiele, and Aug. Weiss. J. Van Deusen, of Sprout Brook; F. A. Salisbury, of Syracuse, and C. B. Howard, of Romulus, Secretary of the Seneca County Bee-Keepers' Association, were welcome visitors, and participated in the discussions of the meeting.

**Every Present Subscriber** of the Bee Journal should be an agent for it, and get all others possible to subscribe for it.

## Questions AND Answers

CONDUCTED BY

DR. C. C. MILLER, MARENGO, ILL.

[Questions may be mailed to the Bee Journal, or to Dr. Miller direct.]

### Different Names for Sweet Clover.

In the seed stores of San Francisco they know nothing of sweet clover seed. What is its other name?

CALIFORNIA.

ANSWER.—*Mellilotus alba*, mellilot, white mellilot, Bokhara, Cabul clover, and honey-lotus.

### Another Odd-Size Frame.

What objections can be raised against a 10-frame hive with frames 10x15½ inches, inside measure; hive 17 3/16 x 13½ x 10½ high, to correspond with T super for 28 sections, contents 3,000 inches, making a more conducive brood and wintering possibility?

J. M.

Carthage, Ohio.

ANSWER.—One objection is that the frame is an odd size. Aside from that you'll probably like it. The frame is not so large as the Dadant or Quinby.

### Double or Single Walls for Wintering.

1. Which is best, double or single walled hives to winter bees on the summer stands, where the thermometer indicates 20° below zero at times?

2. What will bees build up on quickest in the spring? Why?

MASS.

ANSWERS.—1. If the hives are to be left without any protection, perhaps the double walls would winter best. A cellar might be better than either.

2. I don't know. Some say they'll build up best in double walls because warmer; some say in single walls because the heat of the sun has better chance to get in its work.

### Transferring and Other Matters.

1. I have bought an 8-frame hive, put in full sheets of brood foundation and starters of two or three inches in the sections. I want to get my bees into this hive at the right time, and in the right way; that is, in a way that can be managed by a man who never saw bees handled at all. Is Mr. Heddon's "short way," given on page 299 of the "A B C of Bee-Culture," the one for a novice? Can I make two colonies while transferring?

2. Now, as to comb honey or extracted: Recently you advised an inquirer to try both. Would you give this counsel to one who lives in a country that produces honey nearly uniformly dark-colored? or is such honey more salable in the extracted form?

3. Should a quilt, cloth, canvas, or some such thing be placed over the sections? None came with my hive; but I have seen something referred to bearing all those names, and more.

4. Mr. Root advises that hives be placed on the ground; but I am getting old, and don't like stooping much. All the bees I have ever seen have been placed on benches. Will that not do for me?

There are not many bees kept around here (about 5 miles from Oakland), and "I don't know" whether this is a good place for bees or not; but I don't expect to do much more than supply some of my friends, and enough for my own family; although an addition to my income would not come amiss these hard times.

5. Perhaps you will excuse me for saying that there are too many words in the "A B C of Bee-Culture," and it takes some time to find what you want.



6. Another thing: We are told to open the hives while many of the bees are out in the fields, and keep in subjection those that are at home, by smoking. But are not bees returning all the time, and how will they behave when they find some one meddling with their hive? G. W. W.  
Oakland, Calif.

ANSWERS.—1. If there is no one to watch for swarms, perhaps you can't do better than to use the Heddon plan of transferring. If convenient to watch for swarms, it may be better to let them swarm naturally, hive the swarm in the new hive, setting it in place of the old hive after removing the old hive to a new place, then 21 days later drive the bees, either uniting with the swarm or putting in a separate hive. If you are anxious for increase you can make two colonies in this way, or in either way. If the colony is not very strong, better keep it all in one.

2. Probably extracted will be the best thing for you, but I think you may be interested in getting a little comb honey, if for nothing but the fun of it.

3. Your hive is probably dovetail, which has a flat cover, and makes no use of sheets or quilts. When supers are put on the hive, the flat cover is put directly over the sections without any sheet or quilt. Sheets or quilts are not used as much now as in the past.

4. A few bee-keepers prefer to have their hives set up high enough to work at them standing without stooping over. I'm like you, I don't like to stoop. More than that, I'm too lazy to stand up when I can sit down, so I set my hives close to the ground, and always have a seat to sit on when at work at a hive. It is possible, however, that in some places it may be better to have the hives elevated by way of protection from some animal or insect that may be an enemy to the bees.

5. Yes, I'll excuse you, for the present, for saying there are too many words in the "A B C of Bee-Culture." Wait just a little while, and you'll say there are not enough. Some things, perhaps many things, in it are given in which you feel no particular interest, and others are treated more fully than you care for, but there are others who wouldn't miss those superabundant words for a good deal.

6. A bee stings in defence of its life or its home. A pinched bee stings in defence of its life. A free bee only in defence of its home. A bee that comes from the field has nothing to do with the defence of its home, and I don't believe you could get such a one to sting in any other way than by catching and pinching it. But as a matter of actual practice, handle the bees when it suits you, providing it isn't too cold. You'll find times though, when they are so cross that it will best suit you to let them alone, especially when there is a sudden check to the honey-flow.

### Combs With Old Dead Brood.

Last fall, in taking frames out of the hives and replacing with frames filled with honey for the bees to winter on, I found 4 or 5 frames that I took out contained a small amount of brood. These frames are all nice worker-comb. I set them away in the shop. Will this dead brood do any harm to give to the bees this spring, or would I better melt the combs up? Luce, Mich. W. C.

ANSWER.—It is not at all likely that the dead brood will do any harm, only it will be well not to give too much of it to one colony at the same time. The bees will do wonders in the way of cleaning up dirty combs, but it is possible to give them so much nastiness that they will desert the hive rather than undertake the job. If, however, the dead brood is dry, as it probably is, there will hardly be any danger that you will overdo the matter.

### Nucleus-Box Method of Making Nuclei.

In Mr. Doolittle's work on "Queen-Rearing," he gives a method of making nuclei by means of the nucleus-box, where one has bees in an upper story and queen-excluder between the two stories. I want to make some nuclei in nucleus-boxes for the purpose of introducing some virgin queens, and perhaps some valuable queens from a distance, but I do not want to put on any upper stories. Would there be so much danger of getting the queen as to deter one from shaking the bees from the outside frames of any colony that could spare them, if you wanted to make nuclei in this way? E. B.

ANSWER.—If I understand correctly, the risk would be too great. I suppose you're perhaps counting that the queen would not be likely to be on one of the outside combs. Of

course she is, or has been, wherever there is brood, and whenever you find a frame outside the brood that has bees enough on it to make it worth while to take, the queen may think it worth while to be there.

If you're going into the business of making nuclei, let me tell you an item that perhaps you don't know: A queenless colony is ever so much better than a colony having a queen, if you want to take away bees for a nucleus. Take the frames with adhering bees from a colony having a queen, put each frame separately in a nucleus hive, and so many of the bees will return to the old colony that enough will not be left to take care of the brood. But take the frames in the same way from a queenless colony, and the bees will pretty much all stay just where they're put. At least that has been my experience in a number of cases.

If I wanted to make nuclei, and didn't want to look for a queen, I think I'd do something like this: Divide the brood and bees of a colony into two equal parts, putting them in two hives side by side on the old stand. Four days later lift out the frames with bees and put them where you want them, taking them from the hive that contains no eggs.

### Wood-Veneer Foundation.

What about the wood-veneer foundation mentioned some time ago. Is it in any way superior to all-wax brood-foundation? H. B.

ANSWER.—I don't know. I never saw any of it, and was not prepossessed in its favor, because at one time foundation with a tinfoil base was lauded, and failed on trial. But some who have tried the foundation you mention say they have found it a success. It will be in order for any, or all, who have tried it, to say with what result, whether successful or not.

### Laying of the Queen—A Boy's Question.

1. As far as I have learned, the queen lays her egg in the empty cell. Now, is the cell filled with honey after the egg is put in, or is the cell capped over without anything in but the egg? As I am a young beginner, I would like to learn all I can about bees. W. L. Z.

ANSWER.—I remember in one instance to see an egg in a cell with pollen in a hive with a normal laying queen, but I never yet saw an egg in a cell with honey. The egg is laid in a clean, empty cell, hatches out into a little grub in about three days, then for about five days the nurse-bees feed it, and then it is sealed over. No honey is put into a cell that contains an egg or a larva. It would be a good plan for you to get a text-book on bees, that would inform you about this and many other things.

### Producing Extracted Honey—Comb Honey in the Out-Apiary—Separators or Full Sheets of Foundation?

1. In working for extracted honey, would you use full-size or half-depth frames above the brood-chamber?

2. Would you use a queen-bar between the brood-chamber and extracting-supers?

3. Can I run an out-Apiary for comb honey, if I have the queens' clipped, without having some one to watch for swarms?

4. If I use separators, do I need to use full sheets of foundation in sections? Or is it more profitable to use full sheets, anyway? H. H. P.

Baraboo, Wis.

ANSWERS.—1. If I didn't care anything for expense, I'd use half-depth. The full-depth have the advantage that they can be used interchangeably in the brood-chamber. But some think that the honey is affected by being in combs that have contained brood, so that, all things considered, the weight of argument may be in favor of the shallow frames for surplus honey. Dadant says the queen is not so likely to go into shallow frames where no excluders are used.

2. With deep frames I should want excluders. If shallow frames are used in the super it is possible that excluders might not be needed.

3. I don't know. I've done it for some years, but it might be more satisfactory than it is.

4. Although there isn't much difference, you'll probably get along better with full sheets than starters when you don't use separators, but so far I have thought it advisable to use both full sheets and separators.

# THE AMERICAN BEE JOURNAL

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**Removal Notice.**—In order to get more room, we have removed from 56 Fifth Ave. to 118 MICHIGAN ST., where all our correspondents should now address us. We are on the 3rd floor in the large brick building on the southwest corner of La Salle and Michigan Streets—one block north and one block east of the Chicago & Northwestern Passenger Station. Remember, we are on Michigan Street, not Michigan Avenue. The latter is used almost wholly as a boulevard and residence thoroughfare, while the former (where we are) is a business street.

**The Toronto Convention Report** is now issued in pamphlet form, and will be mailed free to those who became members of the North American at Toronto, in a few days—just as soon as we can reach it after getting settled in our new office. This fulfills our offer to furnish a bound copy of the Report to Toronto members free of cost; any one else desiring a copy, can have it by sending us 25 cents in stamps, when it will be mailed promptly. As we had less than 100 copies of the Report bound, it will be necessary to order at once, if you wish to get it.

**Mr. Thomas G. Newman**—the Manager of the National Bee-Keepers' Union—expects to remove to San Diego, Calif., with his family about April 10. This will be welcome news to his many friends in the sunset State. Mrs. Newman's health, and that of Mr. N., have been quite bad for some time, and it is with the hope of recuperating weakened energies that they make the change. We trust the invigorating climate of southern California will do wonders for them, and that they will favor the Bee Journal with frequent reports.

Next week we will publish an article from Mr. Newman, on the amalgamation subject. Hon. J. M. Hambaugh puts in a vigorous protest this week, on page 162.

**All Honey Commission-Men** are not thieves and swindlers, as some of our readers might think from reading recent denunciations of certain unreliable ones in the Bee Journal. No, sir; we know there are good, honest men in the commission business, and we believe that all who are found in

the honey and beeswax dealers' list on another page are treating their customers all right. If not, we want to know it, for we will not keep their names in the Bee Journal after being assured of any crooked dealing on their part.

During the past year we have refused and cast out what will amount to a loss to us of about \$200 a year in advertising, just because we became satisfied that they were not treating customers as they should. As we have said before, we will not knowingly advertise for a dishonest firm. We will endeavor to protect our subscribers in every way possible, even if we must suffer the loss of money from advertising that we need. But we believe our readers will appreciate our efforts, and send us more than enough new subscriptions to make up for all loss in advertising from any dishonest commission-men.

**Mr. E. Kretchmer**, of Red Oak, Iowa, thinks he was slighted on page 136, where several of the leading supply manufacturers were named, and Mr. K. was omitted. Of course, it was quite unintentional on our part; we had no thought of doing him, or any other firm, an injustice. Come to think of it, the Page & Lyon Mfg. Co., and J. Fornbrook, of Wisconsin, should also be included.

From a publisher's standpoint, it might easily be decided that "the largest" firms are also those that should advertise the most extensively. That may be one reason why some were overlooked. We should think that large bee-supply manufacturers would also advertise largely in the best bee-papers, for the papers really create the demand for new supplies in their untiring effort to reach every bee-keeper in the land. Sometimes we think dealers and manufacturers do not sufficiently appreciate this fact. But, of course, they are supposed to know their own business best, and we may be wrong about it. However, we venture the suggestion that the most successful in any line do the most advertising—judiciously, of course.

**"The California Bee-Keepers' Exchange** is now fully on its feet," writes Prof. Cook. "Articles of incorporation have been adopted; directors appointed for each of the counties of Southern California; one of the best bee-keepers of the State elected for President, and a very bright business man appointed as Secretary and Manager. This last gentleman will give his entire time to the Exchange, and if we may judge from the enthusiasm already shown in favor of the movement, it will not be difficult to secure the co-operation of the whole bee-fraternity of Southern California. This gentleman will at once commence to work up markets for the coming year, so that by the time the honey is ready for sale, it will be known just where it is to be sent, and what prices may be secured. It is expected that the membership fee, together with one-sixth of the honey crop—which every member of the Association is to promise—will give all needed funds for the necessary preliminary work. The bee-keepers are wide-awake in this matter, and are very hopeful of the results."

**A Bee-Keepers' Arbor Day** has been suggested by Mr. N. Levering, the editor of the apian department of The California Cultivator. He says:

Bee-forage is a most important question for bee-keepers' consideration on account of the diminution of the forage by agriculture and grazing, which, in part, accounts for short honey crops in many parts of the country. An increase of bee-forage will remedy the deficiency in a great measure. This can readily be done by concerted action on the part of the apiculturists who reside in the mountain districts, and wherever there are lands not susceptible of cultivation, by planting trees whose bloom yields nectar, and such other plants and vegetation as contribute to the bee's storehouse. This would soon bring about a perceptible increase of honey as well as bees. Planting by a few would secure the desired object only to a limited extent, whereas if all plant each year for a



few years the result would be most gratifying. The wonderful advantage that would be derived from such a movement can readily be seen by every careful observer and practical apiarist. The gain in honey and the saving of bees owing to the proximity of feed would be very remunerative for the labor and expense incurred.

I sincerely trust that the State association, at its called meeting, will take some action in the matter by fixing a day for the planting of trees and other feed, to be known as "Bee-Keepers' Arbor Day," and urge bee-keepers to organize Bee-Keepers' Arbor Associations throughout southern California.

I have given the matter considerable thought, and regard it most important and feasible, and deserving the most careful consideration of all who are interested in the future prosperity of apiculture.

All kinds of forage should be planted that will contribute to the bee, and are most suitable to the soil and locality.

In trees I would call special attention to the sugar eucalyptus. It is a vigorous bloomer, rich in nectar. Other varieties that bloom at various seasons of the year should be planted, among which are early and late willow. The acacia is also good, and requires but little and often no irrigation. The sages, horehound, and many other plants of a nectar-yielding character, the seeds of which can be sown upon the waste-places of the mountains during the rainy season will soon repay in a luxurious growth and much nectar. If this suggestion is not acted upon now, the time is not far distant when it will be.

We think Mr. Levering has made a good suggestion, and we hope that "The Bee-Keepers' Arbor Day" will not be limited to California, but that everywhere bee-keepers will resolve to plant annually some honey-yielding trees or other forage for their bees. Very often they may be able to induce their neighbors to plant or sow what will be beneficial to bees, and thus will the object be doubly helped. Why not begin this spring to plant and sow?

**Benton Book Resolution.**—On March 3, we received the following letter from Mr. Hilton, which refers to the Benton Book:

WASHINGTON, D. C., Feb. 28, 1896.

HON. GEO. E. HILTON, Fremont, Mich.—

My Dear Sir:—My resolution to have a reprint of the work on Apiculture, passed the Senate at yesterday's session. I think there will be no trouble in securing its passage by the House.

If this result is secured, of course you know how pleased I shall be to send copies to you as you may desire.

Very truly yours,

J. C. BURROWS.

So there is good prospect of every bee-keeper being able to have a free copy of "The Honey-Bee," by Mr. Benton.

Mr. Burrows is one of Michigan's able Senators in Washington, and shows his interest in bee-keeping by his works. The Senate has done a wise thing in thus recognizing apiculture, and no doubt the House of Representatives will also distinguish itself by endorsing the Resolution as soon as it has a chance to do so.

**Somnambulist's Big Yield** of honey failed to appear in connection with the other large reports on page 43, but it was given in the Progressive Bee-Keeper later, and is as follows:

Friend Flanagan encourages us by reference to many of the large crops in the past, and Editor York copies the article complete in January 16th number of American Bee Journal, and at the same time gives any others who may so desire a chance to blow, by kindly inviting them to relieve themselves through the medium of this journal, but as that would incur extra postage and delay, I'll take my chances right here and now, and just say that a certain sleepy-head not only dreamed of, but realized, 22,000 pounds of comb honey from 114 colonies, spring count, in a single season.

Pretty good for a "sleepy-head." But, surely, Sommy must have been awake that season, in order to do the necessary hustling to take care of so large a crop.

**Now is the Time** to work for new subscribers. Why not take advantage of the offers made on page 175?



#### Growing Basswoods from Cuttings.

In Gleanings I read about how to grow basswood and mulberries. Either will grow from cuttings, as will all soft woods, if cuttings are made from ripe wood. For basswood and mulberries, take off this year's growth, soon after the leaves have fallen off. Cut from 8 to 12 inches long; tie up in small bundles; place in damp sand, not wet; for if too wet they will die; and if kept in a warm cellar they will have calloused over by spring, when they can be carefully set in rows, and covered with a mulch of straw or leaves so as to keep them damp and shaded. They will soon start out leaves and roots, and will grow, if properly cared for, six feet high by fall.—JOHN CRAFT, in Gleanings.

#### Alfalfa in Ohio—Cultivation and Value.

The Ohio Experiment Station has made repeated attempts to cultivate it, both at Columbus and in Wayne county, but the difficulty of getting a stand is so great, and the plant is so particular about its soil, that we do not expect its culture ever to become general in Ohio, although there are some regions of the State where it would seem that it ought to thrive.

To those who wish to experiment with it we offer the following suggestions: Select a loose soil, preferably sandy, lying above a gravelly or porous sub-soil, with, if possible, a subterranean water supply. The soil conditions which are found in many of our river bottom lands would seem to be most favorable. Avoid a soil on which water stands, or one having a hardpan near the surface.

Prepare the land by plowing and harrowing most thoroughly, as soon as it can be worked in the spring. Sow the seed (which should be American grown) at the rate of 20 to 30 pounds to the acre, and cover it with a light harrow. When the weeds have grown to sufficient height, clip them off with a mowing machine, with the cutter-bar turned up so as not to cut close to the ground, repeating this as the weeds grow during the season.

No crop is to be expected during the first season, but it should give two cuttings the second year, and after that about three cuttings each year. If a good stand is secured on snitable soil it will not need renewing for many years.

The New York State Experiment Station, at Geneva, has succeeded in securing a fine stand of alfalfa, which has thus far endured the winters, and there are isolated instances of successful culture on the gravelly loams of Southwestern Ohio and on the sandy lands of the lake shore.—Ohio Exp. Sta. Bulletin.

#### Cleansing Wax With Acid.

The following questions are asked Dr. Miller, in American Bee Journal, page 745:

1. How much sulphuric acid should I apply to a gallon crock full of old combs to take the wax out of the cocoons?
2. Is it injurious to a tin vessel?
3. How is it applied to old combs?

L. H. L.

ANSWERS.—1. I'm not familiar with the matter from experience but I think about a small tablespoonful to a gallon of water.

2. Yes.

3. I think the wax is stirred in the water, and allowed plenty of time to do its work, then the wax is melted and separated as usual.

From answer 3 it would appear that Dr. M. means to stir the combs in cold water with the acid. Now, that is just what stumps me. I never tried a scheme of that kind, and do not believe that the acid could do any work, so far as purifying the wax is concerned, no odds how long the combs were left in the solution. Refiners use sulphuric acid to cut the dirt and color out of crude oil, and then cut the oil out with caustic soda. But oil is a liquid; and if you want acid to cut the dirt out of wax you must turn that into a liquid. This can be done only by heat. The doctor conveys the idea that the work of the acid is done while the old combs are lying in the solution of cold water and acid. This is the one thing, the only thing, that I didn't know. This is what surprised and astonished me—astonished me so much that I don't believe it yet, and I will tell you why. You notice the answer concludes, "then the wax is melted and separated as usual." Now, Doctor, there

is where the acid does its work—on the liquid wax; for when would it drive the dirt to the bottom, out of old comb? This process will cleanse the wax if it is boiled in the same water in which it is soaked because the acid is in it. But it is bad engineering. It will boil over very easily.

Now, L. H. L., sit down at the feet of experience, and learn. Here are three things you should not do: 1. Never go near a kitchen stove to melt wax. It is dangerous. 2. Don't melt it in any place where any thing can catch fire, even if the whole country burns down. 3. Never put any acid in until your wax is completely melted—every bit of it, out of your old comb. When it is done boiling, pour your acid in slowly—very slowly—stirring your wax all the time until it is milky—quite milky. When you have thoroughly stirred and mixed it, let it settle. The acid drives all the dirt to the bottom, and in a little while you can dip it out carefully—not going to the bottom of the wax—and run it into merchantable cakes.—Skylark, in *Gleanings*.

#### The Dark and the Bright Side.

"Well! the bees will die anyway, fix them as you will. I do not want much to do with the pesky things. They are too uncertain. You never know when you are going to have a good year for honey or whether it will pay to fuss with them."

"I think you are looking all on the dark side of bee-keeping. We must look on all sides for a little profit. I get a great deal of pleasure from my bees, as well as considerable profit some seasons. Bee-keeping is a good school-teacher. It teaches one patience and perseverance."

"We farmers must work at something that will pay."

"That is very true, but do you know when you plow and drag your ground for potatoes that you will get a crop? You must mark the ground, plant and fertilize, cultivate, hoe, put on paris green three or four times, hill them up, dig them, carry them into the cellar and sell them for only 15 cents a bushel, if you sell them just now. Very soon you may hear they are 20 cents, and thinking they will be no higher in price you will carry them out of the cellar, load them into a wagon, draw them to a car perhaps three or four miles away, and for over 40 bushels you will receive \$8.00. This is not very large pay for the amount of work, but it is what is being done this fall, yet you would not say you will never plant any more potatoes, or sell your farm. Our dividends did not net us more than 35 to 40 cents for 100 pounds of milk some months this season at the factory. We would not sell our cows because of the drought of one or two seasons. We must look on the bright side of things. Keep our bees and love them. Work the harder. Raise a little of many things. We as individuals and a nation are very wicked. We must learn to look to God, the source of all blessing, more than we ever have before, and we will then reap a rich reward.—MRS. OLIVER COLE, in *American Bee-Keeper*."

#### Three Stray Straws from Gleanings.

A record book has this advantage, that it can be referred to at any time, and is often useful in furnishing testimony as to events that transpired years ago.

M. Bertrand, editor of the *Revue*, accepted with favor the theory that bees inherit character from the nurses. He introduced a Caucasian queen of great gentleness into a very vicious colony, and the progeny of the new queen showed no trace of viciousness. He is now very doubtful as to the correctness of the theory.

The report of the U. S. Secretary of Agriculture quotes the English honey market as giving "Thurber-Whyland's white-sage, strained, 1-pound jars" at only 1c. a pound more than "Californian in original cans." One can not help pitying that poor cent in having so much to do in covering the expense of jars and putting up. The report innocently remarks, "It would be ruinous to send adulterated honey to England."

#### Importance of Strong Colonies Under all Circumstances.

Some write as though a colony could get too strong. How it is possible to get one too strong without doubling, I cannot understand. I know that, in poor seasons, only strong colonies will do well, even in getting winter stores. In a fair season the strong colony will outstrip the average colony; and in a good season the strong colony must certainly do the best, for surely two pounds of bees can and will gather more honey than one pound. I have never been able to believe that apiarists are able to get colonies so strong that they refuse to work. I admit there is a little more energy in proportion to numbers

when the energy is necessary to get the brood-nest into shape; but this does not apply to the colony already in prime strength.

I can always get more and better work in the sections when I have colonies so strong that they must occupy the super. If the flow comes very freely while it does last, we do not notice it so much; but when the gain is one to two, and even three pounds a part of the time, per day, it is almost impossible to get even reasonable work in sections with a colony that has not swarmed; while the one that swarms will do almost nothing in sections; but two colonies put together in one hive (the bees and enough brood to fill the hive) will do fair to good work.

This year (1895) our flow began June 20. My scale hive colony was stronger than the average, and was not allowed to swarm. It is a 10-frame hive. The gain from June 20 to July 15 (the extent of the flow) was an average of 2½ pounds per day. The best day's work was 6 pounds. This colony gave about 25 sections. Many other average colonies in nine-frame hives, and a few in eight-frame, gave from nothing to about one super, the majority not giving 10 good sections. In one case I put the force of two colonies in one nine-frame hive, and got two 28-section supers. Another colony on nine frames had the forces from two other colonies added, and gave three 28-section supers. All the evidence goes to show that, if I had doubled the forces of all, preserving the old stock in original hives, I should have had as many colonies in the end, and about doubled my surplus.—R. C. AIKEN, in *Gleanings*.

#### Difference in Colonies.

For instance, the colony which I would call best on May 15 might become one of the poorest by June 25, at which time the honey harvest was about to arrive. This as a rule, would be owing to a failing queen, as I have often noticed that a colony which wintered extremely well and goes to breeding rapidly in early spring, does not equal one that wintered only fairly well, but commences brood rearing in earnest on May 1. The reason is that by about May 25 to June 1 the queen in the stronger one ceases to be as prolific as the other, and this allows the bees to put the first honey coming in into the brood-combs, rather forcing it into the sections, as does the other through her extra-prolificness later on. I have often noticed that if the bees are allowed to get the start of the queen so as to store much honey in the brood-chamber during the first of the honey harvest, that colony will be an unprofitable one.

The remedy is to give each colony only as many combs as the queen will keep occupied with brood, and when a colony is found having a failing queen, either give another queen or remove a part of the brood-combs. Again, the giving of a colony a large amount of surplus room to start with has a tendency to make that colony an unprofitable one. As it has not a force of bees large enough to occupy the whole of the surplus department at once they seem to become discouraged, and instead of taking possession of a part of it, they will often cluster outside the hive, and crowd the brood out with honey, sometimes never entering the sections at all. I usually give only room in the surplus apartment to the amount of 20 pounds, and a part of this space has combs in it left over from the previous season, thereby coaxing the bees into the sections with their first loads of new honey. In a week, more room is given, and so on as I see each colony needs, as all colonies are looked after once a week at this time of year, if possible.—G. M. DOOLITTLE, in *Progressive Bee-Keeper*.

#### Poultry with Bees.

Dr. J. H. Ashley says in *Gleanings*: "We believe from personal experience that the raising of poultry furnishes just what we are looking for; namely, an occupation not laborious, but whose returns for faithful attention are sure, and where the most active labor comes at that season of year when bees need the least attention. This is equally suitable for the bee-keeper who does the work himself, or for him who, like ourselves, while actively engaged in professional work, wants something at home which, by way of change, furnishes pleasure and relaxation, and still makes it profitable to keep a good active man of all work. By keeping a few standard-bred fowls of a variety giving a profusion of eggs and fine bodies, we have the pleasure of seeing fine birds of uniform size and color, and having on our tables fresh eggs, and fowls of our own raising; and, even without any special effort by advertising, there will be a demand among our friends and neighbors for sittings of eggs, with an occasional call for a trio, or pen of birds from our pure-bred stock, which, sold at even a moderate price, will soon more than repay the difference in the original cost between starting with thoroughbreds and common fowls; and in nothing does blood tell more surely than in fowls."

See "Bee-Keeper's Guide" offer on page 173.





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Gents:—I received the "Higginsville Smoker" all O. K. It's a dandy; please find enclosed stamps for another. Yours truly, OTTO ENDERS, Oswegatche, N. Y.

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WHEN ANSWERING THIS ADVERTISEMENT, MENTION THIS JOURNAL.

## General Items.

### Some Good Honey-Yields.

Father began keeping bees at South Chester, Vt., when 17 years old. He owned bees from that time until his death, which occurred Jan. 16, 1894, at which time we had 150 colonies. I think I was born with the same love for the little bee that father had.

The largest yield we ever had was in 1890, taking 20,000 pounds from 100 colonies.

In the spring of 1894 I fed my 100 colonies about 125 pounds of rye-flour; they bred up strong, and the last half of May and all of June they hung on the outside of hives, and did nothing but eat honey. There was nothing for them to get. Then the first of July they began on the basswood, and I extracted 10,000 pounds, besides leaving them plenty for winter. Last spring the same thing occurred again. Now the question is, does it pay to breed them up early in the season?

Some years the white clover blossoms, and the bees store hundreds of pounds of honey in June, but who can tell six weeks before hand whether it will blossom or not?

I was just reading in my last Bee Journal where some one asks how much honey an acre of buckwheat will yield. If I were to answer that question I would say it depends a great deal upon the atmosphere. Last year there was at least 100 acres of buckwheat in reach of my bees, and they did not store a pound of honey from it.

My 101 colonies in chaff hives had a splendid flight Jan. 10.

F. B. FARRINGTON.

Strawberry Point, Iowa.

### A Virginia Report.

There are not many bee-keepers in Norfolk county, but quite a number in other counties in Virginia. I have kept bees but little over two years. I love to work among them. My cousin gave me one colony of black bees in a box-hive the spring of 1893. Then I got three swarms from the one colony, and but very little honey. The four colonies wintered all right without feeding. In January, 1894, I bought 8 colonies of Italian-hybrid bees, in box-hives, for \$22. The 12 colonies wintered without feeding. During the summer of 1895 I had 25 swarms from the 12 colonies. I killed 12 of the weak colonies after the honey-flow was over. I got very little honey last year.

In December, 1895, I bought 5 colonies of Italian bees in 8-frame hives from a bee-keeper in Illinois, for \$25, and the expressage on them to Norfolk was \$16. I thought that was like paying for them twice.

I have now 30 colonies of bees in good condition, wintering on the summer stands. Our hives are in rows 6 feet apart each way. We have evergreen trees between the hives. The ground is seeded with white clover, which is our main honey-plant here. A few days ago we sent for some sweet clover seed, which we expect to try this year as a honey-plant.

I can't see how any one can keep bees without taking one or more bee-papers.

Norfolk, Va., Feb. 1. W. W. SEELEY.

### A Beginner's Experience.

I am a novice in bee-culture, having put my first colony into a Quinby-Dadant hive June 27, 1895. My father has kept bees for the last 30 years in the box-hive, or beegum, as we call them. He has been moderately successful, considering the hives and other disadvantages, compared with the present bee-appliances; having had at one time 75 colonies, but for the want of the proper attention they have dwindled down to only 12 now.

About June 1, 1895, I happened to read an article on bees in an agricultural paper, and it just set me all a fire in bee-culture. I at once sent for "Langstroth on the

## St. Joe

Is the name of the Hive you want. **PRICE-LIST** now ready. Send stamp and get valuable paper on **WINTERING BEES.**

**GOLDEN WYANDOTTE** Eggs from fine birds only \$1.00 for 13.

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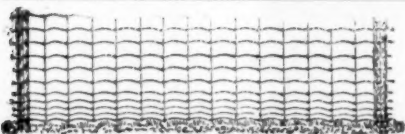
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In spite of the common belief that she could not be restrained, an eastern man raised an immense cove, pent up with **PAGE**, from the egg to the oven. See picture in "Hustler."

**PAGE WOVEN WIRE FENCE CO.**, Adrian, Mich.

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	1lb	5lb	10lb	25lb
Heavy or Medium.....	45c	42c	40c	38c
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Are you going to buy Foundation for Cash, or have you Wax to sell or trade for Foundation and other Supplies? Have you 25 lbs. or more of Wax that you want made into Foundation? If so, do not fail to write me for samples and prices. I make a specialty of working up Wax by the lb., and do it very cheap during the winter. Beeswax wanted at all times.

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**SEED** Of those great honey-producing plants —Alfalfa and Cleome or Rocky Mountain Honey-Plant. Alfalfa seed at 7 cts. a lb.

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**Ferguson Patent Hive** with double-case Super and Wicket-Gate Honey-Board, with the Escape. It is the easiest, quickest hive to handle for the production of comb honey. Address,

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See reports of experiments with Comb Foundation at the government station, Lapeer, Mich. **FREE**—large illustrated Catalog of everything needed in the apiary. Full of information. **M. H. Hunt, Bell Branch, Mich.**  
5Dtcf Please mention this Journal.

## Potatoes

Sir William, Maggie Murphy, World's Fair, Rural N. Y. No. 2, \$1.00 per bushel. 20 New Varieties. Catalogue Free.

**J. F. MICHAEL**,  
1D6t GREENVILLE, OHIO.

Mention the American Bee Journal.

Honey-Bee," revised by Dadant, then I read the works of many noted apiarists, or their experiences and modern improvements very enthusiastically. Then I transferred a colony as aforesaid, and later two more, and then I hived a new swarm, all from my father's apiary.

Also, on July 29 there was a very small swarm issued from one of the old box-hive colonies, and I hived it in a one-frame observatory hive, and had a peculiar occurrence afterward. One fine day in August I was in my apiary, and all at once I heard the swarming of bees, I hastily examined my transferred colonies, one of which I almost knew was absconding, and lo, and behold! they were all working nicely. The swarm commenced trying to settle on a limb just above my observatory hive, and I just waited patiently and said to myself, "I'll be a colony ahead in a few minutes;" and, sir, those bees could not settle on that limb worth a cent, from some cause, and I got impatient wondering what was the matter. I went up and examined the limb for the queen, but could not find her. By and by I guess they found the queen in the observatory hive, and, much to my surprise, they began to tumble in, and it was but a few moments until they had it full and running over. There I was, and hardly knew what to do first. Well, I took off the top and procured the queen and put her in another hive which I had placed on the table with the observatory hive, and began to rake the bees from off the front, top and sides of the little hive, for they had it entirely covered up.

I put all the bees (except enough to take care of the little hive) into the big one, and set it away off to one side, and it was but a short while until everything was lovely. Now, the bees in the little hive had to rear a new queen, which they did, and I watched the proceedings very closely, and it was quite a lesson to me. I now have 5 good, strong, thrifty colonies, and hope that I may increase to quite a number this year.

Tupelo, Ark., Feb. 1.

J. E. JONES.

## "Fat" Bees—All Honey in Sections.

"A peep into the hive even before cold weather is yet here reveals the fact that nearly all the bees are very clumsy, and they resemble very closely the comb-builders of the working season. By weighing a given number of these bees you will observe that they are much heavier than the bees of early spring, and about equal in weight to bees well-filled with honey. By dissecting you will find that their plumpness and weight are not caused by a distension of their honey-sacs, or an accumulation in their intestines, but by the development of flesh and blood as in other fattened animals. Upon the principle of fat producing heat in other animals, the fat bees are able to generate heat much longer than if they were poor and had to carry all their fuel in their honey-sacs."

In looking over one of my papers to-day I noticed the above, and thinking that may be it will be of some use I copy it and send it to you.

Bees were bringing in pollen yesterday. Would the readers of the American Bee Journal like to know how to get all their honey in sections? **C. C. PARSONS.**

Bessemer, Ala., Feb. 3.

[As our readers want to learn all they can, no doubt they will be pleased to read about your method of "getting all the honey in sections."—Ed.]

## Wintering Bees in Nebraska.

Bees in southeastern Nebraska went into winter quarters in good condition, and so far my loss has been but 6 out of 131 in my home apiary. I leave my bees on the summer stands facing the south, and pack three inches of leaves on the west side and north end of the hives, leaving the east side and south end without any protection.

After trying the cellar, and wintering on summer stands without protection, I was



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convinced that some other method should be adopted, so I tried the plan of packing all around, as is usually advised. I found no better success from this method. While packing all around kept out cold to some extent, it also kept out the heat from the sun, and many thus packed, especially if in a shady place, filled with frost and perished.

My losses from the three methods of wintering I formerly tried averaged 25 per cent., and by the plan I have adopted for the last three years not over 10 per cent.

In the first place, an apiary should be free from shade and face the south, and the hives should set either on the ground, or very nearly so, and the super should be filled with wheat chaff, leaving on the enameled cloth, under which I would recommend placing the small sticks reaching across at least six of the center frames; this will allow the bees to go from frame to frame. The outside packing should extend nearly to the top of the super, and be of dry leaves.

I sold 10 colonies to H., a neighbor, in the spring of 1894, and although I gave him directions how he should pack his bees, he disregarded it, and moved them all up to one place in a row, and packed them collectively with leaves on all sides except the front. In the spring he found them all dead, with plenty of honey. I also sold C. and B. 14 colonies at the same time; they packed the same way, and lost all except 4, which were in old-fashioned box-hives. I could mention many other instances of losses by packing all around the hives, but perhaps the above is sufficient. I do not contend that my way, or any other method of packing, will keep the heat up in the hive, but I do believe it prevents cold winds entering the hive through cracks, that is about all, except the chaff in the super, that probably helps to retain heat.

In our State about 1-6 to ¼ of the days in winter the sun shines very warm, and if hives are packed all around, the heat on warm days will have little effect in thawing out accumulated frost. The hive-entrance should be large, and not allowed to close by snow, frost, or dead bees. Four of my losses this winter were from smothering, and the other from starving, with plenty of honey in the hive. The bees clustered during a cold spell on empty combs.

J. L. GANDY.

Humboldt, Nebr., Jan. 31.

**Sweet Clover and Alfalfa.**

In reading the proceedings of the Illinois State Bee-Keeper's Convention, on page 69, the question of planting for honey and pasturage engaged my attention. I believe this to be one of the most important subjects in relation to bee-keeping, especially when we consider the changing conditions going on around us, our forests being removed, the flora changed, making bee-keeping as a specialty a very uncertain occupation. I do not intend saying much on the subject, as the last season left convincing proof of the necessity of increasing our pasturage by sowing of honey-producing plants. In this section bee-keepers within reach of sweet clover can report 100 per cent. increase, and some wonderful yields of comb honey; bees going into winter quarters heavy with natural stores, and strong in bees.

The question I wish more particularly to refer to is alfalfa as a honey-plant. From the glowing accounts of the great yields of honey from the alfalfa fields of the South and southwestern States, one would be led to believe that the same results might be expected from alfalfa wherever it may be sown, which is not the case. I saw in Gleanings for Feb. 1, a perfect picture of alfalfa, and a comment as follows:

"Permit us to say once more, that any one who contemplates making any test of alfalfa at all should send for Farmers' Bulletin No. 31, Department of Agriculture, Washington, D. C. In the alfalfa bulletin we find nothing in regard to its value as a honey-plant. It seems a little strange that such a complete and exhaustive treatise should omit to mention that the plant pro-

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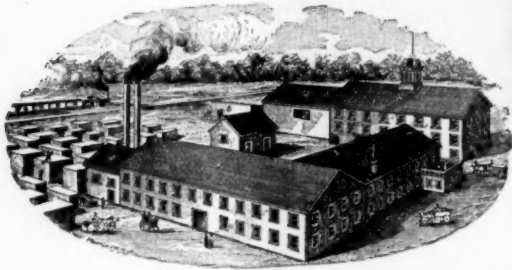
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duces some of the finest honey in the world; and it has for several years been shipped by the carload from regions where alfalfa is largely grown."

From the above one would suppose that alfalfa may be grown anywhere with the same results. Ten years ago I invested in alfalfa seed, and up to the present time I have never seen a bee upon it. This coincides with several prominent bee-keepers at the recent Illinois State Bee-Keepers' Convention. I am of the opinion that there is a large belt of territory on the North American continent where alfalfa is grown, and it is of no use whatever as a honey-producing plant. For the benefit of bee-keepers it would be well to have its limits defined, so that those wishing to try it may not waste their money upon it and meet with disappointment.

I hope this may open the way to a friendly discussion on this subject for the benefit of bee-keepers.

Toronto, Ont.

JOHN MCARTHUR.

### Report for 1895—An Old Elm.

I commenced the spring of 1895 with 15 colonies, having no loss in wintering. They did quite well the first part of the season, especially on raspberry. White and Alsike clover furnished a moderate amount, but did not last long; after those we usually have more or less basswood, but it was less last year—none to speak of, with scarcely anything from fall flowers. They showed little propensity for swarming, but increased slightly by dividing, but united in September to the original number. My yield, per colony, was 40 pounds of comb honey and 10 pounds of extracted. I fed mostly sugar syrup to winter. Altogether it was a rather poor season.

About the large honey yields, I will say that the most I ever knew of being taken from one colony, spring count, was 172 pounds; the parent colony was allowed to swarm once, and the new swarm furnished the 100 pounds. That was nearly 20 years ago, and before I had any bees. I think it could hardly be done around here now. The most I ever got from one colony was 72 pounds of comb honey and 20 pounds of extracted. The colony did not swarm, or seem inclined to.

I have just finished cutting up an elm tree, which I think is perhaps the oldest tree in this portion of the country. If the rings or circles around the heart are reliable indications of the age—and they undoubtedly are—it was 350 years old, and must have been quite a tree when the Pilgrims landed. There were the remains of two different swarms of bees in the tree, but for some reason they failed to survive long. It was an enormous tree, measuring 41 inches in diameter inside of the bark, at a height of 7½ feet from the ground, and made, when worked into cord-wood, 3½ cords. It was nearly sound, the circles in some places indicating very hard seasons.

FRANK CHAMPION.

Exeter, Maine, Jan. 24.

### A Report—Robbing—Frosted Plums.

I began the season of 1895 with 13 colonies, having been reduced from 58 to 13 by

the previous dry year, and the past was not a real good honey season, but pretty good, at least towards the close. My bees averaged about 77 pounds per colony, and a good quality of honey. About 300 of this was from basswood, but it is not so good as clover honey.

I am trying to learn something every year, and when able to be out I try to gain some practical information every day. One new feature that I have tried and succeeded in, is to have two laying queens in one colony at the close of the season. I put away three colonies with two queens in each, so as to have queens to supply any deficiency that may occur in that line in the spring. Should none occur, I have a good laying queen to sell to some of my less fortunate neighbors.

I also learned how to prevent robbing, and it may be a very old method for ought I know among the fraternity. Nevertheless, I will give it: After having opened a hive, I found the robbers entering both at the top and bottom. I took the paint brush and painted all around the top where they crawled in under the lid, then took a bunch of grass and laid it in front, and made it thoroughly wet, so that all bees crawling through became quite wet. This put a stop to the robbing, instant.

Last spring my 20 plum trees set very full of fruit, and I intended to spray the trees the day following, but that night it was very cold, and when I got up in the morning I found the plums all frozen hard. I had heard mother tell about putting cold water on garden plants to draw the frost out, so I took the spray pump, and water from the well, and sprayed the trees until the water dropped from the leaves. After having done this, I went to the house feeling very blue, for I had great hope for my plums, as this was the first crop that I had on these trees. I awaited results, but expected when the sun came up to find all my plums on the ground, as others had done, but to my surprise and delight they were all right, and the trees were full of as nice fruit as I ever saw, while my neighbor near by had none. Whether the water did it or not, I don't know.

O. P. MILLER.

Glendon, Iowa.

### Not a Failure Last Year.

Through the Bee Journal I learn of the success or failure of bee-keepers from nearly all parts of North America, except northwestern Minnesota. There are a number (mostly farmers) that keep bees in this section of the State, and some of them take the Bee Journal—and they all ought to take it—but as I see no communication from any one in this part of the State, I will give a brief account of my own and my neighbors' success. (We had no use for the word "failure" last season—if there was failure it was the fault of the man, not of the season.)

Last spring I had 4 colonies, and one died after I removed them from the cellar to the summer stands, leaving me 3 good colonies. I had 6 swarms issue; one absconded one day during my absence, and I united 2 small swarms; this gave me 7 colonies to put into the cellar last fall. Bees were not put into winter quarters until the last of

November here; I put mine into the cellar Dec. 3, and they had a flight only a few days before. I took 150 pounds of honey in one-pound sections, or 50 pounds to the colony, spring count. I find a ready sale for all the honey I have to spare, at 17 cents per pound.

My family can all handle bees without gloves or veil, except one daughter, who can't go within sight of bees without getting stung. I was obliged to be absent a few days during the swarming season, and I told this daughter to watch the bees, and call her brother if any swarms issued. She wanted to know if I would give her a swarm if she would give them. Certainly, I would. Well, the day I left home a swarm came out, and she hived them, and they not only filled the brood-chamber, but stored 28 pounds of surplus honey in one-pound sections. My daughter has married since then, and of course she will take the Bee Journal.

Some of the bee-keepers here have taken from 75 pounds to 85 pounds of surplus honey per colony last season. Taking some of the correspondents of the Bee Journal as authority, there are no apiarists here—they are only bee-keepers. I do not know of any one that keeps more than 8 or 10 colonies of bees. They are kept mostly by farmers, not for profit, but for the honey for family use.

S. B. SMITH.

Keerville, Minn.

### Honey & Beeswax Market Quotations.

CHICAGO, ILL., Feb. 28.—White clover and basswood comb is sought after in preference to any other, and commands a better price and now sells at 15c. for clover and 13½c. for basswood. Other white comb honey sells at 11½c.; dark, 8½c. amber, 9½c., and very slow of sale. Extracted is unusually dull, with large amounts on sale. White clover and linden, 6½c.; dark and amber grades, 4½c.

Beeswax, 28@30c.

R. A. B. &amp; Co.

PHILADELPHIA, PA., Mar. 6.—Honey has been selling freely, there being considerable call for comb honey, and the war in Cuba has made extracted honey sell to the baking trade who previously used Cuba honey. We quote: Fancy comb, 15c.; fair to good, 11½c.; fair, 9c. Extracted, 4½c. pure white clover, 10c. Beeswax, 30c.

W. A. S.

NEW YORK, N. Y., Feb. 24.—Market quiet. White comb in fair demand at 11½c. Very little demand for buckwheat comb at 8½c. Extracted selling fairly well, principally California, at 5½c. and some buckwheat moving at 4½c.; Southern, 50¢@55¢. per gallon; white clover and basswood, 5½c.

Beeswax unchanged.

H. B. &amp; S.

CINCINNATI, O., Mar. 7.—Demand is fair for choice comb honey, at 12½c. in a jobbing way. Extracted is slow at 4½c. Beeswax is in good demand at 25¢@30c. for good to choice yellow.

C. F. M. &amp; S.

KANSAS CITY, MO., Feb. 19.—The demand for comb and extracted is fair. We quote: No. 1 white, 1-lb., 13½c.; No. 2, 11½c.; No. 1 amber, 10½c.; No. 2, 8½c. Extracted, white, 5½c. amber, 5½c.

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